



# **Functional Independence Science**

**Official Released Items**

## **Grade 11**

---

**Spring 2008  
Official Released Items**

**MICHIGAN STATE BOARD OF EDUCATION  
STATEMENT OF ASSURANCE OF COMPLIANCE WITH FEDERAL LAW**

The Michigan State Board of Education complies with all Federal laws and regulations prohibiting discrimination and with all requirements and regulations of the U.S. Department of Education. It is the policy of the Michigan State Board of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, or handicap shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity for which it is responsible or for which it receives financial assistance from the U.S. Department of Education.

The *Grade 11 Functional Independence Science Assessment* was administered for the first time in Spring 2008. Beginning with this administration, the Office of Educational Assessment and Accountability (OEAA) will annually release a portion of the items that are administered on the assessment. This booklet contains released items from the Spring 2008 administration and is intended to be used by districts to assist in their interpretation of item analysis data. The information contained in this booklet may also be used by schools, teachers, and parents as a resource for understanding the content and format of the assessment items. In addition to MI-Access training materials and Extended Benchmarks (EB), the released items may also have utility in informing decisions related to instruction, curriculum, and assessment. These items are **not** secure and may be copied and distributed as needed.

The table below lists the number of core and released items administered on the Spring 2008 Grade 11 Functional Independence Science Assessment. Core items are those that count toward students' scores. All released items in this booklet were selected from the pool of core items that appeared on the assessment.

**Functional Independence Science Grade 11**

<b>Science Strand</b>	<b>Number of Core Items</b>
Life	14
Physical	15
Earth	12
Constructing	2
Reflecting	2
<b>Total Core Items/Points</b>	<b>45</b>
<b>Released Items</b>	<b>9</b> <b>(Numbers vary by strand and topic.)</b>

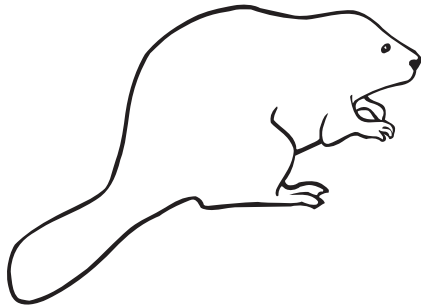
Copyright© 2008, held by the State Administrative Board, State of Michigan. All rights reserved. Printed in U.S.A. **Permission is granted to schools, parents, government agencies and non-profit organizations in Michigan to reproduce and distribute this document for non-commercial use in helping Michigan educators and other citizens in interpreting and using the MI-Access assessment results.**

For all instances other than identified in the previous paragraph, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission from the Office of Educational Assessment and Accountability.

**DIRECTIONS:** Read each question. Choose the **BEST** answer for each question.

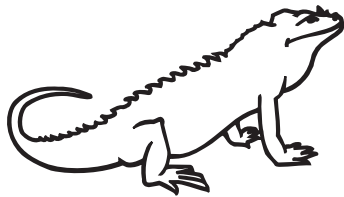
**R1** Which organism is a mammal?

**A**



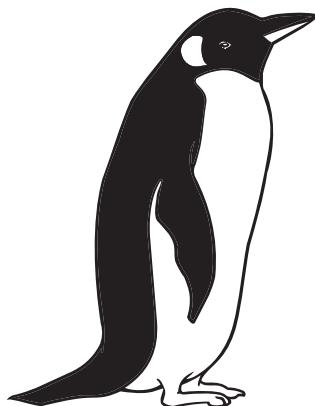
**beaver**

**B**



**iguana**

**C**



**penguin**

**R2** Jeffery has a bacterial infection.

Which statement **best** describes the treatment for the infection?

- A** Antibiotics will kill the bacteria.
  - B** Water will slow the bacteria.
  - C** Jeffery must stay in bed.
- 

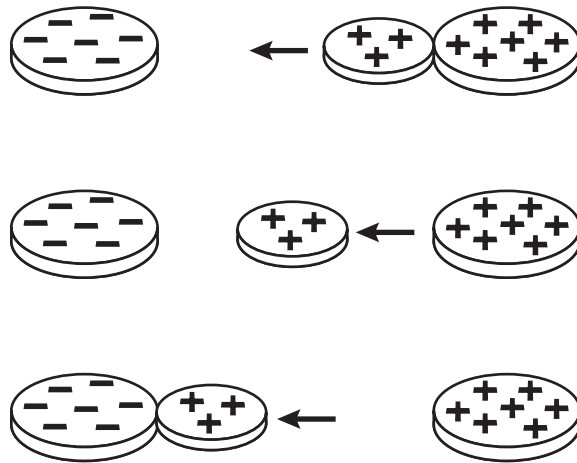
**R3** The wolf population in a habitat increased.

What is the **best** explanation for why the local moose population decreased?

- A** The wolves ate the moose.
- B** The wolves' howling scared away the moose.
- C** The wolves chased the moose away.

- R4** What happens to the boiling point of the mixture when salt is added to water?
- A** decreases
  - B** increases
  - C** stays the same

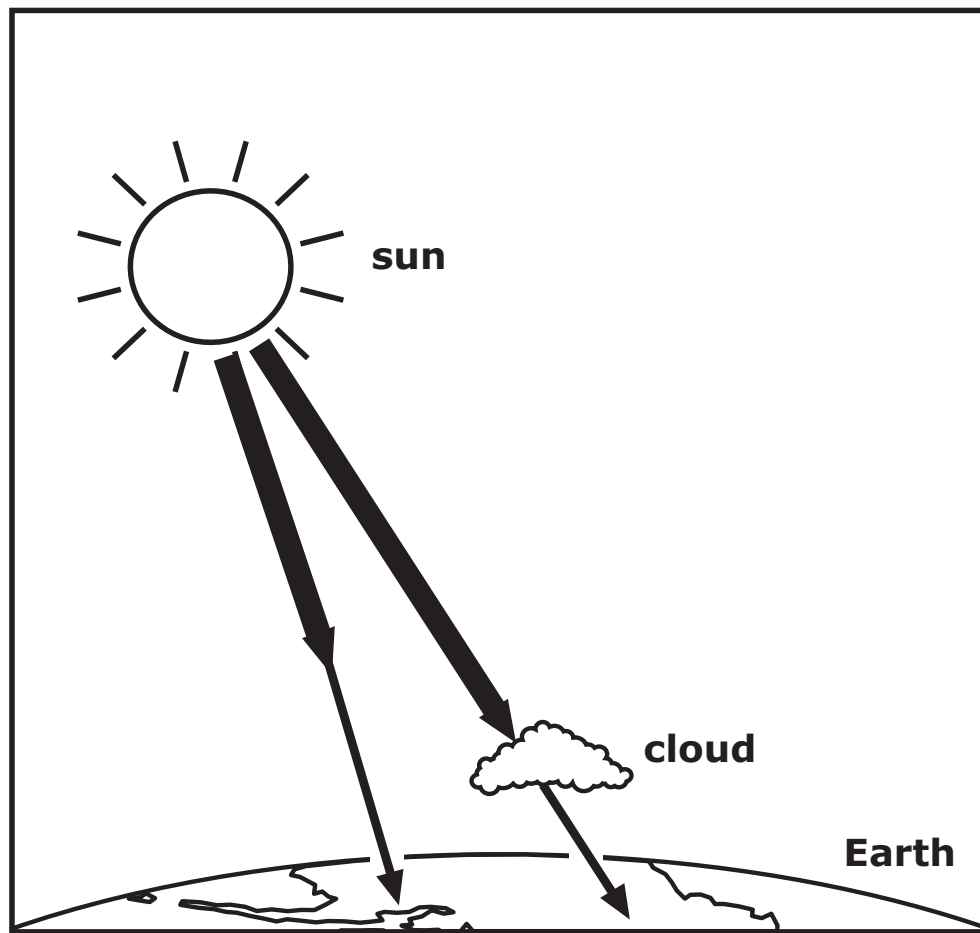
**R5** The picture below shows charged particles.



Why does the small particle in the middle move towards the left?

- A** Like charges attract.
- B** Unlike charges repel.
- C** Unlike charges attract.

Use the picture below to answer question **R6**.



- R6** Why are the two light beams thinner at the bottom than at the top?
- A** The energy of the sun decreases during the day.
  - B** Some energy is absorbed by the cloud and the air.
  - C** None of the sun's energy reaches Earth's surface.



**R7** Mining has both positive and negative effects.

What is one **positive** effect of sand mining?

- A** Sand mining helps the economy by creating jobs.
- B** Sand mining helps the water quality of the river.
- C** Moving the sand helps plant and animal habitats.

---

**R8** How does water flow from the Great Lakes to the ocean?

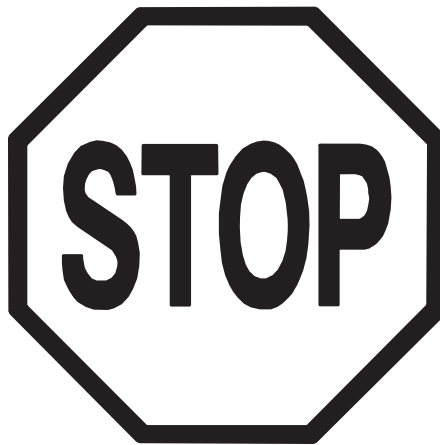
- A** through a stream
- B** through a river
- C** through a wetland

**R9** What is the **safest** thing for a person to do if trapped in a car by a blizzard?

- A** open all the windows to let in fresh air
- B** get out of the vehicle and walk to safety
- C** stay inside the vehicle as long as possible



**Do Not Continue.**



**Do not continue until instructed to do so.**



Below is a list of the Extended Benchmarks (EB) for each released item found in this booklet. The chart contains the EB code, a brief description of what is measured, and the correct answer for each released item.

Full descriptions of the EB contained in the chart below are available for review and download at **[www.mi.gov/mi-access](http://www.mi.gov/mi-access)**.

<b>Science</b>			
<b>Released Item Number</b>	<b>EB Code</b>	<b>STRAND or Abbreviated Descriptor/Scoring Focus</b>	<b>Answer Key</b>
		<b>LIFE</b>	
R1	L.OR.FI.EB.III.2.h.1a	Compare and/or classify organisms in major groups based on their structure.	A
R2	L.OR.FI.EB.III.2.h.4a	Recognize how living things maintain a healthy balance.	A
R3	L.EC.FI.EB.III.5.h.3a	Identify and/or describe general factors that influence population size.	A
		<b>PHYSICAL</b>	
R4	P.ME.FI.EB.IV.1.m.4ADDh	Describe the arrangement and motion of molecules in solids, liquids, and gases.	B
R5	P.MO.FI.EB.IV.3.m.3ADDh	Identify and/or describe the non-contact forces exerted by magnets.	C
R6	P.WV.FI.EB.IV.4.m.4ADDh	Identify and/or describe ways in which light interacts with matter.	B
		<b>EARTH</b>	
R7	E.GE.FI.EB.V.1.h.3a	Identify and/or describe common objects made from earth materials.	A
R8	E.HY.FI.EB.V.2.m.2ADDh	Describe how surface water in Michigan reaches the ocean and returns.	B
R9	E.AW.FI.EB.V.3.e.3ADDh	Identify and explain appropriate safety precautions during severe weather.	C



Michigan Department of Education  
Office of Educational Assessment and Accountability  
Assessment for Students with Disabilities Program  
608 West Allegan Street  
P.O. Box 30008  
Lansing, MI 48909  
(517) 241-4416  
[www.mi.gov/mi-access](http://www.mi.gov/mi-access)